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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,478	01/24/2001	Gregory M. Fehn	C37-129b	2101

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EXAMINER

MANLOVE, SHALIE A

ART UNIT	PAPER NUMBER
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1772

8

DATE MAILED: 01/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,478

Applicant(s)

FEHN, GREGORY M.

Examiner

Shalie A. Manlove

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-59 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 44-59 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claims 44-59 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: ____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the information pertaining to the layers and portions or parts of the layers must be shown or the features canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show #12 (bottom) in Fig. 1, as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 45 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the

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claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form. Claim 44 and 45 recites, "film is continuous".

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 44 is rejected under 35 U.S.C. 112, second paragraph, as being vague and unclear.

The structural relationship between the post-consumer recycled polyethylene resin and a continuous film of the fluorinated polyethylene has not been established, one of ordinary skill in the art can not determine which substance is in which layer. The claims should positively set forth the structure of the container. In addition the claim is incomplete, "the portion of the wall" and "wherever the layer occurs" are not specific.

7. The phrase "substantially continuous" in claim 44 is a relative term, which renders the claim indefinite. The phrase "substantially continuous" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Correction is advised.

8. Claims 46 and 58 recite the limitation "48 ppb. /. 020 of contaminant". There is insufficient antecedent basis for this limitation in the claim.

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9. The term "insufficient thickness" in claim 55 is a relative term, which renders the claim indefinite. The term "insufficient thickness" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

10. The term "capability of" in line 2 of claims 55 and 56 is vague and indefinite. Either the film prevents the passage of PCR or it does not.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 44-56, and 58 rejected under 35 U.S.C. 103(a) as being unpatentable over Moore et al (US 5712009) in view of Mehta et al (US 4880675).

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As to claims 44-45, 47-48, Moore teaches the use of post consumer recycled polyethylene in the production of plastic beverage and food containers due to the large quantities available to reduce waste and cost (col. 1, lines 10-15 and 34-37 and fig. 2, # C). Moore also teaches a container made by co extruding a multiplayer parison and then blow molding the container (col. 2, lines 57-60, fig. 1). Moore fails to teach a plastic container comprising a continuous film of a fluorinated inner layer.

However, Mehta teaches a plastic container comprising a film of a fluorinated inner layer for the purpose of protecting the contents of the container where needed (col.2, lines 6-20 and 44-50). Mehta is silent as to the continuity of the fluorinated polyethylene film, however it is thought to be inherently continuous or uninterrupted to achieve the desired barrier properties.

Thus, it would have been obvious to one of ordinary skill in the art to substitute the fluorinated polyethylene taught by Mehta for the virgin ethylene homopolymer in Moore in order to achieve a container utilizing post consumer plastic having good barrier properties. The container can be used to contain ingestibles especially since the fluorinated polyethylene layer blocks the migration of undesirables from the PCR layer into the contents of the container.

As to claims 51-53, Moore teaches the container is coextruded and blow molded as described above. Moore fails to teach the container is thermoformed, or injection molded.

However, Mehta teaches the container is coextruded followed by blow molding, injection molding and thermoforming into the desired shape (col.2, lines 15-20).

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Thus it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to provide Moore with various ways of producing a parison as in injection molding and thermoforming in order to produce a plastic container.

As to claim 54, Moore et al suggest that post consumer resin be used because of the large quantities of HDPE post consumer resin available (col. 1, lines 34-39).

One of ordinary skill in the art would recognize that it is well known in the art to use post consumer resins in order to recycle and reuse the large quantities of polyethylene as taught by Moore.

Therefore, it would have been obvious to one of ordinary skill in the art to use HDPE post consumer resin in order to recycle and reuse plastic containers and conserve the environment.

As to claims 46, and 58, Moore et al also recognizes that post consumer plastic has contaminants (col.1 lines 38-43).

One of ordinary skill in the art recognizes that the concentration of contaminants in the post consumer plastic would vary depending upon the post consumer plastic material.

Thus, it would have been obvious to one of ordinary skill in the art to use different concentration of contaminants, which would be obvious in order to recycle and reuse plastic containers and conserve the environment.

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As to claims 49-50, Moore and Mehta teach the invention as described above. Moore discloses post consumer recycled layers of 10% and 70% of the wall container and 10% of the innermost and outermost polyethylene layers (fig. 2). Moore et al also disclose the densities of the various materials, which make up the different layers (Table 1, col. 3, lines 47—col. 4, lines 1-9).

Thus, the concentration of the recycled plastic in the container would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired results as shown by Moore.

As to claims 55 and 56, Moore and Mehta teach the invention as described above, except for the film's thickness having the capability of preventing the passage from PCR into the interior of the container.

The thickness of the film layer would be readily determined through routine experimentation by one having ordinary skill in the art, depending on the desired results absence of showing unexpected results. *In re Boesch and Slaney*, 205 USPQ 215 CCPA 1980

It would have been obvious to one of ordinary skill in the art to make a container having a post consumer recycled polyethylene and having an interior continuous fluorinated polyethylene film layer of sufficient thickness in order to prevent migration of contaminants into the contents of the container.

13. Claim 57 and 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over, Moore and Mehta et al as applied to claim 49 above, and further in view of Strum et al (USPN 4,824,618).

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Moore teaches a layer of PCR as described above. Mehta teaches a plastic container comprising a film of a fluorinated polyethylene as an inner layer as described above.

Moore and Mehta fail to teach multilayered structures for plastic bottles for beverages having a structural layer of PP or PE as the innermost, or outermost or both layers, and an intermediate barrier layer, adhesive layers and at least one layer of reground material.

However, Strum et al teach multilayered structures for plastic bottles for beverages having a structural layer of PP or PE as the innermost, or outermost or both layers, and an intermediate barrier layer, adhesive layers and at least one layer of reground material for the purpose of reducing waste and cost (col. 1, lines 22-46).

It would have been obvious to one of ordinary skill in the art to use Strum's multi-layered structure and substitute Mehta's film of fluorinated polyethylene for the layer following a layer of polyethylene in order to prevent undesirable flavors and aromas from entering the contents of the container, especially since it is well known that fluorinated polyethylene is a good barrier layer for this type of problem and substitute Moore's layer of PCR as a layer following the fluorinated polyethylene in order to recycle post-consumer plastics and reduce waste.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shalie A. Manlove whose telephone number is (703) 308-8275.

The examiner can normally be reached on M-F 8:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (703) 308-4251. The fax phone numbers for the

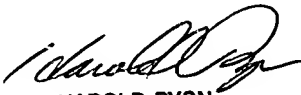
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organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305 3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Shalie A. Manlove
Examiner
Art Unit 1772

January 23, 2002


HAROLD PYON
SUPERVISORY PATENT EXAMINER

